

I. Withdrawn objections and rejections

The Examiner indicates that the objections are withdrawn, and the rejections of claims 6 and 7 under 35 U.S.C. § 112, 2nd paragraph are withdrawn. Applicant thanks the Examiner for those acknowledgements.

II. Claims 1-7 would not have been obvious under 35 U.S.C. § 103(a)

Claims 1-7 stand rejected under 35 U.S.C. § 103(a) for alleged obviousness over Engel et al. (U.S. Patent No. 5,197,125, hereafter “Engel”). Applicant respectfully submits that Engel fails to disclose or suggest all of the claimed combination of features as require for a prima facie obviousness rejection under §103. Accordingly, Applicant respectfully requests withdrawal of the rejection and allowance of claims 1-7.

A. Response to arguments

In the response to the arguments, the Examiner restates his position with respect to “consecutive transmission channels identifiable from said authorization channel using a predefined relationship, allocated in the up direction for the following period,” as recited in claim 1. The Examiner allegedly asserts the opposite position from Applicant’s interpretation with respect to Engel.

However, Applicant respectfully directs the Examiner to page 4, lines 3-7 of the November 22, 2000 Office Action and page 3, lines 14-18, which clearly state that:

“Engel et al. fails, however, to teach a system that performs a method in which a transmission authorization received over a transmission channel in the down direction for a given allocation period indicates that the transmission channel and consecutive transmission channels are allocated in the up direction for the following allocation period; instead, Engel et al. teaches this allocation is for the same allocation period (column 4, lines 18-22).” (emphasis added)

Applicant respectfully submits that the above-quoted passage, which is the Examiner's position, applies to claim 1, lines 11-15, which recites:

“...a transmission authorization received over a transmission channel in the down direction for a given allocation period indicating that said transmission channel is allocated in the up direction for the following allocation period... (emphasis added)”

Further, Applicant respectfully submits that the above-quoted passage by the Examiner also applies to claim 1, lines 16-23, which recites:

...wherein a transmission authorization received over a transmission channel in the down direction for a given allocation period indicates that not only said transmission channel, also referred to as the authorization channel, but also consecutive transmission channels identifiable from said authorization channel using a predefined relationship, are allocated in the up direction for the following allocation period. (emphasis added)

In both cases, the claimed features recite allocation for the following allocation period, which the Examiner admits is absent from the prior art. Thus, Applicant respectfully maintains that the Examiner has stated a first position in the rejection of both Office Actions, and a second, opposite position in the Response to Arguments at page 7, item 6 of the final Office Action. To not include for the following allocation period in the examination of either of the aforementioned recitations of claim 1 would constitute impermissible piecemeal analysis of claim 1. Applicant also submits that arguments above also apply to the similar features recited in claims 6 and 7.

Further, the Examiner responds to the Applicant's argument that the Examiner relied solely on the fact that the required modifications would produce the desired features of claim 1, and that the Examiner relied on the fact that the required modification would have been “simple” to one of ordinary skill in the art, by allegedly also listing several advantages. Applicant respectfully submits that the Examiner's position is only possible in hindsight of the claimed

invention in the present invention, and that such hindsight reconstruction forms an impermissible ground of rejection. Applicant respectfully submits that the Examiner has not provided any motivation, from Engel, for one of ordinary skill in the art to modify Engel to produce the claimed combination of features.

Thus, Applicant respectfully submits that as discussed in further detail below, the claims are allowable, and that the rejection under §103 should be withdrawn.

B. Claims 1-7 would not have been obvious over Engel

Engel discloses special transmission channels. More specifically, Engel discloses that transmission authorizations A, B, C are transmitted in special channels, as illustrated in Figure 2 of Engel. As also illustrated in Figure 2 of Engel, all channels other than the channels carrying A, B, C, P, I (e.g., M1, M2, M3) are available for data transmission, and all transmission authorizations on such channels are explicitly indicated in information A, B and C. For further clarification, Applicant directs the Examiner to column 4, lines 13-23 and column 4, line 65-column 5, line 2 of Engel.

The present invention discloses no special channel for transmission authorizations and simply uses the same channel for opposite direction communication. More specifically and contrary to Engel, an authorized transmission channel is not explicitly indicated as a channel specifically intended for authorization purpose, but is deduced from a predetermined transmission channel on which data are received in the opposite transmission direction. Engel does not disclose or even suggest such a principle.

The present invention solves the problem of an authorization scheme that lacks flexibility due to the one-to-one correspondence between a transmission channel authorized for transmission, and a transmission channel on which data is received in the opposite transmission direction, in the same allocation period. Accordingly, Applicant respectfully submits that Engel fails to disclose or suggest the features recited in claim 1, lines 11-23 of the present application.

Further, Applicant respectfully submits that Engel fails to disclose or suggest ...a transmission authorization received over a transmission channel in the down direction for a given allocation period indicating that said transmission channel is allocated in the up direction for the following allocation period... or ...wherein a transmission authorization received over a transmission channel in the down direction for a given allocation period indicates that not only said transmission channel, also referred to as the authorization channel, but also consecutive transmission channels identifiable from said authorization channel using a predefined relationship, are allocated in the up direction for the following allocation period, as recited claims 1, 6 and 7. As admitted by the Examiner, Engel fails to teach that said transmission channel is allocated in the up direction for the following allocation period, and said consecutive transmission channels ... are allocated in the up direction for the following allocation period, as recited in claims 1, 6 and 7. Thus, Applicant respectfully requests withdrawal of the rejection and allowance of claims 1, 6 and 7.

The Examiner asserts at paragraph 6, lines 9-14 that Engel discloses “a transmission authorization ... consecutive transmission channels ... col. 6 lines 32-37.” Applicant respectfully submits that claim 1 recites that the consecutive transmission channels are channels that are

consecutive to “said transmission channel,” and “said transmission channel” is, in uplink, the same transmission channel as the channel on which a transmission authorization is received in downlink.

Accordingly, Applicant respectfully submits that Engel fails to disclose or suggest the features recited in claim 1, lines 11-15 or 16-23, as discussed in greater detail above, because in Engel while the position of the allocated transmission channels is not determined from the position of the transmission channels in which an assignment information is sent, contrary to the claimed invention. Instead, Engel identifies the position of the allocated transmission channels from the content of the transmitted assignment information, as disclosed at column 4, lines 19-22 of Engel.

Further, Applicant respectfully submits that because Engel does not disclose any predefined relationship between adjacent time slots, as recited in claims 1, 6 and 7, one of ordinary skill in the art would not have been motivated to modify Engel to produce the claimed combination of features recited in claims 1, 6 and 7.

Applicant also respectfully submits that a mere statement that a modification will produce claimed features is not sufficient evidence to produce a prima facie rejection under §103. Further, Applicant respectfully submits that the Examiner has not shown how one of ordinary skill in the art would have been motivated to produce the claimed combination of features recited in claims 1, 6 and 7.

As noted in MPEP §2143.01, the fact that references can be combined or modified does not render the resultant combination obvious unless the prior art also suggests the desirability

thereof. In re Mills, 916 F.2d 680, 16 USPQ2d 1430 (Fed. Cir. 1990) (Although a prior art device “may be capable of being modified to run the way the apparatus is claimed, there must a suggestion or motivation in the reference to do so.” 16 USPQ2d at 1432).

Applicant respectfully submits that even if capable of modification, Engel does not provide a motivation or suggestion to do so; the only suggestion comes from the Examiner (which is improper), and based on In re Mills, the suggestion must come from the reference itself. See also In re Fritch, 23 USPQ2d 1780 (Fed. Cir. 1992). Further, as noted in Al-Site Corp. v. VSI Int’l Inc., 50 USPQ 2d 1161 (Fed. Cir. 1999), the fact that the claimed invention is within the capabilities of one of ordinary skill in the art is not sufficient by itself to establish *prima facie* obviousness. Applicant respectfully submits that while the Examiner’s suggestion of modifying Engel may indicate the simplicity and/or advantages of doing so, that suggestion comes from the Examiner instead of the required source: the reference (Engel) itself.

Claims 2-5 depend from claim 1, and are allowable for at least the same reasons as the claims from which they depend. Thus, Applicant respectfully requests withdrawal of the rejection and allowance of pending claims 1-7.

III. Conclusion

Reconsideration and allowance of all claims are respectfully requested in view of the following remarks. In view of the foregoing, the claims are now believed to be in form for allowance, and such action is hereby solicited. If any points remain in issue which the Examiner feels may be best resolved through a personal or telephone interview, he is kindly requested to contact the undersigned at the telephone number listed below.

AMENDMENT UNDER 37 C.F.R. § 1.116
U.S. Appln. No. 09/094,030

Applicant hereby petitions for any extension of time which may be required to maintain the pendency of this case, and any required fee, except for the Issue Fee, for such extension is to be charged to Deposit Account No. 19-4880.

Respectfully submitted,



Mainak H. Mehta
Registration No. 46,924

SUGHRUE, MION, ZINN,
MACPEAK & SEAS, PLLC
2100 Pennsylvania Avenue, N.W.
Washington, D.C. 20037-3213
Telephone: (202) 293-7060
Facsimile: (202) 293-7860

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